

Appl. No. : **09/960,236**
Filed : **September 20, 2001**

AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings includes changes to Fig. 4A, 11, and 12. One of these sheets, which includes Figs. 4A and 4B, replaces the original sheet including Figs. 4A and 4B. The other three sheets, one of which includes Fig. 11, one of which includes Fig. 12, and one of which includes Fig. 14, replace the original sheets including Figs. 11, 12, and 14.

In Fig. 4A, the previously omitted element 48 has been added. In Fig. 11, the previously omitted elements 302a and 302b have been added. In Fig. 12, the previously omitted element 402 has been added. In Fig. 14, reference numeral "50" has been changed to "500."

Attachments: Replacement Sheets

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REMARKS

Claims 1-50 were pending prior to entry of these amendments. Claims 34 and 35 are withdrawn. Claims 1, 18, 20, 24, 33, 36, 41, and 43 are amended herein. Claims 51 and 52 are added herein.

Drawings

The reference to Fig. 15 on page 2, line 26 of the specification has now been deleted. In Fig. 4A, element 48 has been added. In Fig. 11, elements 302a and 302b have been added. In Fig. 12, element 402 has been added. In Fig. 14, reference numeral "50" has been changed to "500," as suggested by the Examiner.

Specification

The specification has been amended to correct typographical errors, in accordance with the Examiner's suggestion.

Claims

Claim 43 has been amended, as suggested by the Examiner.

Allowable Subject Matter

Applicants note with appreciation that Claims 18, 20, 33, 41, and 43 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Claims 18, 20, 33, 41, and 43 are now allowable as they have been amended to include all of the limitations of the base claim and any intervening claims.

Rejections Under 35 U.S.C. §102

Claims 1-3, 7, 9, 13-14, 23-24, 27-28, and 31-32 are rejected under 35 U.S.C. §102(e) as being anticipated by Uzoh et al., U.S. Patent No. 6,413,388 (Uzoh '388). Claim 25 is rejected under 35 U.S.C. §102(e) as being anticipated by Uzoh '388. Claims 1-3, 7, 9, 13-15, 21-24, 27-28, and 31-32 are rejected under 35 U.S.C. §102(e) as being anticipated by Emesh et al., US 2002/0108861 A1. Claim 1 has been amended to recite that a width of the at least one channel

varies along a length of the at least one channel. Claim 24 has been amended similarly to recite that the at least one channel has a width that varies along a length of the at least one channel. These amendments are fully supported by the specification as originally filed, at, for example, page 11, line 11 – page 12, line 19, and Figs. 7A, 9, 10, 11, 12, and 14.

Uzoh '388 does not disclose or suggest a mask plate apparatus having at least one channel formed in the top surface of the pad within the processing area, wherein the width of the at least one channel varies along the length of the at least one channel and at least one hole disposed between the top surface and the bottom surface of the pad within the at least one channel so that the solution can flow therethrough and into the at least one channel when the physical contact exists with the surface. The Examiner points to Fig. 6f of Uzoh '388, which shows grooves 662 and channels 64 (corresponding to the claimed holes) extending from the top surface to the bottom surface of the pad. However, the grooves 662 formed in the top surface of the pad do not have a width varying along the length of the grooves 662, as recited in amended Claim 1. Fig. 6g of Uzoh '388 does show grooves 666 having a width varying along the length of the grooves 666, but Fig. 6g does not show any holes disposed within the grooves 666 extending between the top and bottom surfaces of the pad. In the embodiment shown in Fig. 6g, the grooves 666 extend between the top and bottom surface of the pad and solution can flow through the grooves, so Uzoh '388 provides no motivation for providing a hole disposed between the top surface and the bottom surface of the pad within the groove so that the solution can flow therethrough.

Emesh similarly does not disclose or suggest a mask plate apparatus having at least one channel formed in the top surface of the pad within the processing area, wherein the width of the at least one channel varies along the length of the at least one channel and at least one hole disposed between the top surface and the bottom surface of the pad within the at least one channel so that the solution can flow therethrough and into the at least one channel when the physical contact exists with the surface. Fig. 9 discloses channels 120 and holes within the channels 210, but the channels do not have a varying width along the length.

Claim 1, as amended is therefore patentable as it is not anticipated by Uzoh '388 or Emesh. Claims 2, 3, 7, 9, 13-14, 23, 25, 27-28, and 31-32, which depend from and include all of the limitations of Claim 1 or 24, as amended, are therefore also patentable. Furthermore, each of the dependent claims recites further distinguishing features of particular utility.

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Rejections Under 35 U.S.C. §103

Claims 4-5, 10-12, 17, 19, 36-40, 42, and 48-49 are rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Uzoh et al., U.S. Patent No. 6,261,426 (Uzoh'426). Claims 6, 8, and 44-47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Uzoh '426, and further in view of Uzoh '388. Claim 25 is rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Uzoh et al., U.S. Patent No. 6,612,915 (Uzoh '915). Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Basol et al. US 2002/0134748. Claims 26 and 29-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Uzoh '915, and further in view of Basol et al.. Claim 50 is rejected under 35 U.S.C. §103(a) as being unpatentable over Emesh in view of Uzoh '425, and further in view of Basol et al.

As discussed above, neither Uzoh '388 nor Emesh teaches or suggests a mask plate apparatus having at least one channel formed in the top surface of the pad within the processing area, wherein the width of the at least one channel varies along the length of the at least one channel and at least one hole disposed between the top surface and the bottom surface of the pad within the at least one channel so that the solution can flow therethrough and into the at least one channel when the physical contact exists with the surface. Similarly, none of Uzoh '426, Uzoh '915, and Basol et al. teaches or suggests a mask plate apparatus having at least one channel formed in the top surface of the pad within the processing area, wherein the width of the at least one channel varies along the length of the at least one channel and at least one hole disposed between the top surface and the bottom surface of the pad within the at least one channel so that the solution can flow therethrough and into the at least one channel when the physical contact exists with the surface.

Claim 36 has been amended to recite at least one channel formed in the top surface of the pad within the processing area, the at least one channel configured to allow a relatively greater amount of processing to occur on one region of the workpiece than another region of the workpiece by varying a width of the at least one channel along a length of the at least one channel. Uzoh '426 does not teach or suggest varying a width of the at least one channel along a length of the at least one channel.

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Claims 1 24, and 36 as amended, are therefore patentable as they are not obvious in view of any of the cited references, either alone or in combination. Claims 4-6, 8, 10-12, 16, 17, 19, 25, 26, 29-30, 37-40, 42, 44-49, and 50, which depend from and include all of the limitations of Claim 1 or 24, are therefore also patentable. Furthermore, each of the dependent claims recites further distinguishing features of particular utility.

New Claims

New Claims 51 and 52 have been amended and are fully supported by the specification as originally filed at, for example, page 11, line 11 – page 12, line 19, and Figs. 7A, 9, 10, 11, 12, and 14.

Conclusion


Applicants respectfully submit that all of the pending claims are patentably distinguishable over the prior art of record. The cited references, either alone or in combination, do not teach or suggest Applicants' claimed invention.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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AMEND

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